

Some new and rare Rhopalocera from Tanzania (Lycaenidae, Satyridae)

by

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ABSTRACT. — Three new species of Tanzanian Rhopalocera are described: *Baliochila pseudofragilis* sp. n., *Castalius stempfferi* sp. n. (both Lycaenidae) and *Coenyropsis carcassoni* sp. n. (Satyridae). *Acraea vuilloti* Mabilie (Acraeidae) is considered to be a distinct species.

INTRODUCTION

In the following lines three new species of butterflies will be described, and some attention will be given to a fourth species. The material originates largely from Tanzania. Most of it is collected by myself, but some specimens have been taken by Dr. R. H. Carcasson and Dr. A. H. B. Rydon.

Baliochila pseudofragilis sp. n. (Lycaenidae), figs. 1—7

Extremely alike *Baliochila fragilis* Stempffer & Bennet, 1953.

Male: Upper side fore wing orange yellow with dark, brown markings; costal border extending from base to about $\frac{2}{3}$ of winglength, with two orange dots between costa and margin, one near distal end of cell and one beyond; the bar at the distal end of the dark costal margin is slightly less extended than in *fragilis*; there is only a trace of a fuscous bar at the discocellular; there are some fuscous scales invading the basal part of the cell; this is not normal in *fragilis*; apex broadly dark-brown and tapering towards tornus; there is a notch of the ground colour cutting into the dark border in the middle of space 3; this is present in all the specimens before

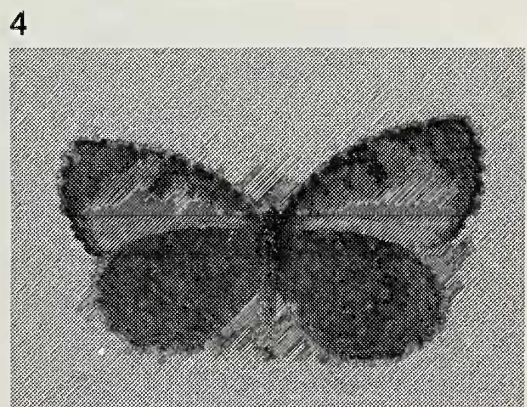
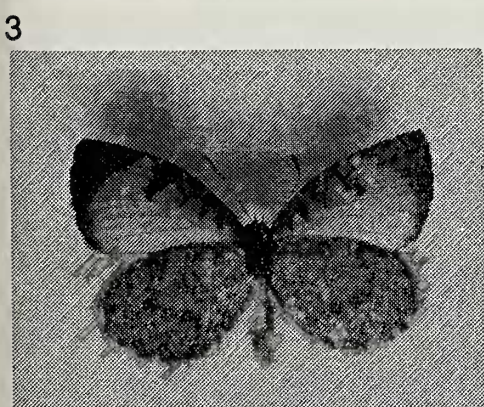
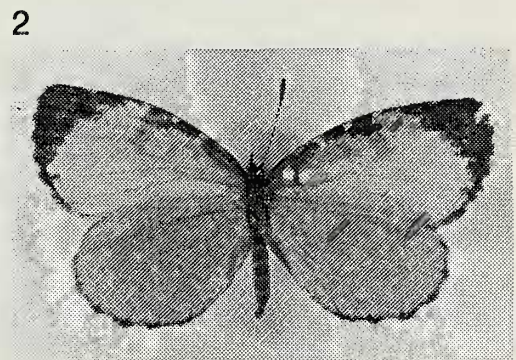
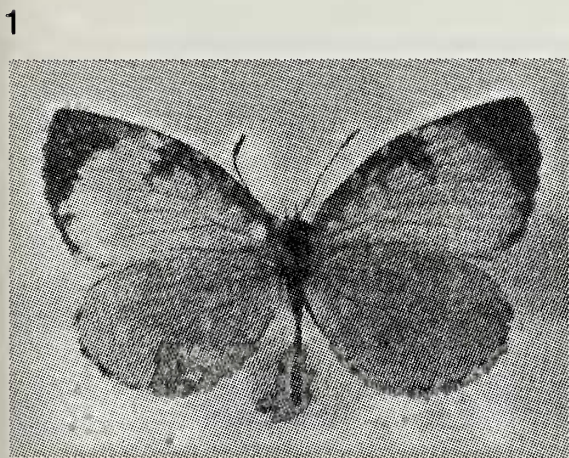
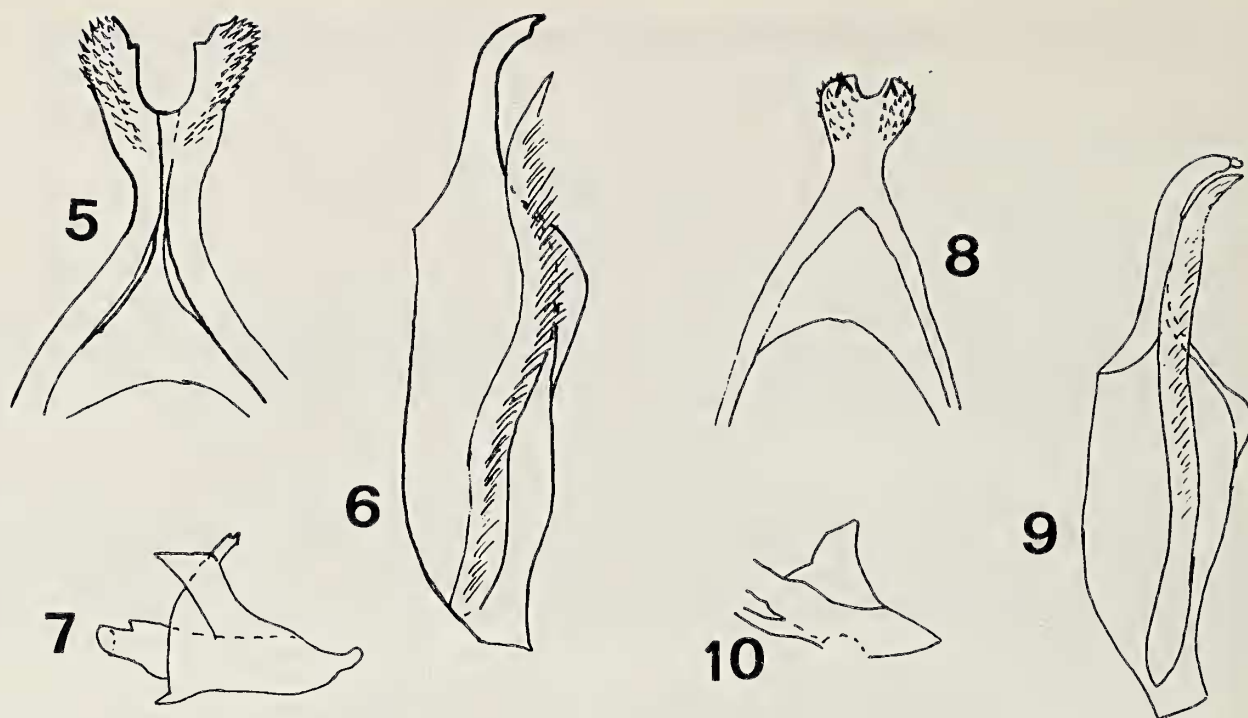


Fig. 1—4. *Baliochila pseudofragilis* sp. n. 1. ♂, holotype, upperside; 2. ♀, allotype, upperside; 3. ♂, holotype, underside; 4. ♀, allotype, underside.



Male genitalia. Fig. 5—7. *Baliochila pseudofragilis* sp. n. 5. tegumen - uncus and part of vinculum; 6. right valva with special process; 7. aedeagus. Fig. 8—10. *Baliochila fragilis* Stempffer & Bennett. 8. as 5; 9. as 6; 10. as 7.

me. The cilia are checkered. Upper side hind wing orange-yellow with a fine marginal border more or less interrupted by the ground colour at the internervular spaces.

Under side fore wing orange yellow, paler towards the inner margin; markings brown, interrupted by orange dots; the costal border is in some specimens contiguous with the apical, brown area; in others interrupted by the orange ground colour at $\frac{2}{3}$ distance from base; there are three brown bars in the cell and a larger one distad of the discocellular reaching vein 4, in one specimen reaching vein 3; three to six orange dots in the costal area between base and $\frac{2}{3}$ distance distad; apex broadly brown as the upper side, but with a row of marginal and a row of rather irregularly placed, internervular submarginal spots; the dark margin is extended to tornus. Underside hind wing paler in some specimens or darker brown in others, with a distinct, discal band darker than the ground colour; there are six rows of small orange dots, the fourth row is not particularly prominent as it is in *fragilis*; the dots of the fourth row are surrounded by dark brown which forms the dark discal band. Length of fore wing: 12 to 13.5 mm.

Genitalia ♂: Uncus much more deeply excised at the apex than in *fragilis*, the spines slightly larger; each of the two apical lobes with a tooth near apex pointing towards each other; the teeth are also present in *fragilis*, but parallel and pointing distad; special process more sinewy than in *fragilis*; thickly clothed with long, spiny hairs; aedeagus short and thick as in *fragilis*; valva distal narrow end somewhat shorter than in *fragilis*.

Female: Upper side fore wing orange-yellow as in the male; costal border extending from base to about $\frac{2}{3}$ of winglength, but narrower than in the male; orange dots in the dark, costal border merging with the ground colour; no distinct costal bars; apical dark area reduced, its inner margin very irregular, merging with margin at vein 4; a notch of the ground colour cutting into the dark border in the middle of space 4. Upper side hind wing as in the male. Underside wings ground colour and markings similar to the male.

Habitat: Open glades in forests, forest margins, in gardens and farmland with shade trees. The species is often found settling on tree trunks. At the foot and lower slopes of Mt. Meru, Arusha. Also occurring inside Arusha town.

Holotype ♂: Tanzania, Arusha, Usa River, 1500 m. 24.III.1972. Paratypes: Same data, but March 1959, 1 ♂; 28.III.1961, 1 ♂; March 1972, 4 ♂♂, 1 ♀. Holotype and allotype and 2 paratypes deposited in the National Museum, Nairobi; one paratype in the British Museum and other paratypes in the author's collection.

Castalius stempfferi sp. n. (Lycaenidae), figs. 11—15

Closely related to *Castalius melaena* Trimen; distinguished only by the underside of the hind wing having slightly thicker, black markings along the outer border of the white, discal area, more or less merging with the marginal, black border which is a little wider than in *melaena*. However, this character is variable in *melaena* and the border is sometimes almost as wide as in *stempfferi*. The underside is also extremely like that of *melaena*, but perhaps with slightly more robust, black markings. The genitalia differ considerably.

Male: Upper side fore wing black with white discal area shaped exactly as in *melaena* and with a white subapical dot. This dot can be faint or nearly absent; there is also a sub-basal, pale patch in the lower part of the cell extending into 1b. In a specimen from Oldeani this patch is more pronounced and longer. Hind wing black with white discal area extended to the inner margin, but not reaching costa, only just inside area 6; the discal, black spots are slightly less separated from the black margin than in *melaena*; in one specimen from Mikumi these spots tend to separate from the margin, but are more parallel to this than in *melaena*.

Underside of the fore wing white with black markings as in *melaena*, but slightly thicker. The position of the markings varies slightly in the specimens examined.

Length of fore wing: 11 to 12.5 mm.

Female: As the male, but with areas in the upper side of both wings more extended and fore wing more rounded. There is little if any, to distinguish it from *melaena*. Length of fore wing: 13 mm.

Genitalia ♂: Uncus composed of two rounded lobes, situated rather far apart with a shallow emargination between; subunci more slender and with less robust base than in *melaena*; vinculum without the rounded expansion; ventral part not narrower than the dorsal end; valva longer, distal end more sharply curved and the serration of the margin less extended towards base; upper process folded under the lower one, but longer and straighter than in *melaena*, as long as, or a little longer than the lower process; aedeagus minute.

Habitat: At Mikumi taken on a small road passing through an evergreen forest. Settling on damp ground.

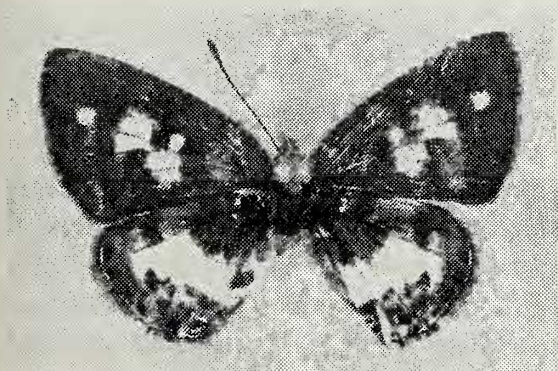
Holotype ♂: Tanzania, Kilosa District, Mikumi Nat. Park, Vuma Hills, May 1973, J. Kielland. Allotype ♀: Same data and collector. Paratypes: 5 ♂♂, same data. One further ♂ from Oldeani, Arusha Region is not considered as a type. Holotype and allotype deposited in the National Museum, Nairobi; paratypes in the National Museum, Nairobi, in the British Museum (Nat. Hist.) and in the author's collection.

I have the pleasure of dedicating this new species to my friend, Dr. H. Stempffer, Paris, whose help in the identification of Lycaenidae has been very valuable to me.

Coenyropsis carcassoni sp. n. (Satyridae), figs. 19—21, 22—25

Differs from *C. bera* Hewitson in the darker ground colour of both sides of the wings, due to more scattered sprinkling of pale scales; the subbasal line hardly discernable, but very clear in *bera*.

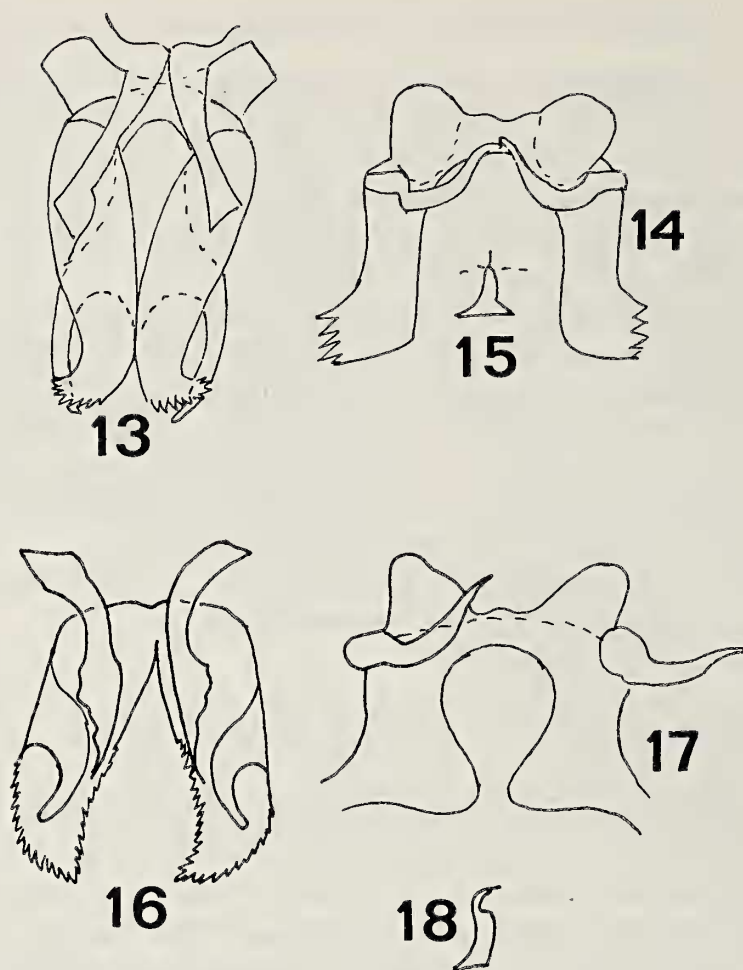
11



12



Fig. 11—12. *Castalius stempfferi* spec. n. 11. ♂, holotype; 12. ♀, allotype.



Male genitalia. Fig. 13—15. *Castalius stempfferi* sp. n. 13. Valva and fultura inferior; 14. tegumen - uncus with part of vinculum; 15. aedeagus. Fig. 16—18. *Castalius melaena* Trimen. 16. as 13; 17. as 14; 18. as 15.

Male: Antenna 32 joints, underside ringed white, upper side brown; palpi fawn, first joint short, second joint over three times as long as the first, third joint as long as the first; eyes naked.

Upper side wings dark, sooty gray, darker than in *bera*, fore wings with ocellar area distinct, tapering towards tornus, nearly reaching vein 2; the dark brown border rather uneven; there is a double marginal line; the two pupils of the ocellar spot are blue.

Upper side of the hind wing with distinct discal, submarginal and marginal lines; the discal line turns sharply basad like a wedge at vein 5, reaching the cell; this is rather indistinct in the paratype from Mikumi; ocellar spots well developed, one in area 1, 2, 3 and 4, largest in 2 and 3 and rather faint in 4.

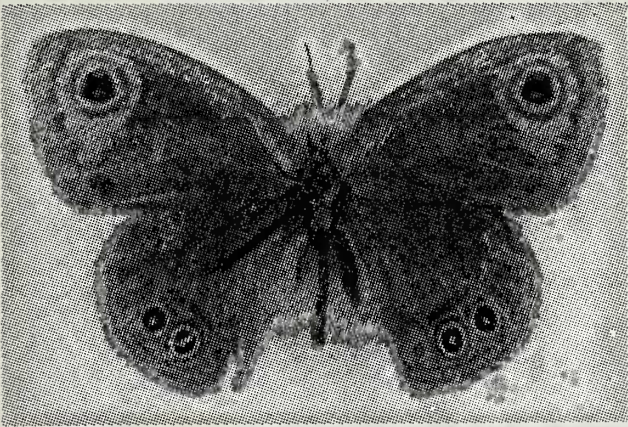
Underside of both wings brown, sprinkled with whitish scales, more scattered than in *bera*, which makes it look darker; fore wings with ocellar area tapering towards tornus as on the upper side, reaching beyond vein 2; in the paratype there is also an ocellar spot in 2, inside the ocellar area; the ocellar border sharply defined; there is a clear submarginal line.

Underside of hind wings a very faint subbasal line, but sharply defined discal, submarginal and marginal lines; the submarginal line is very irregular, deeply incised in space 4 and 5, reaching the ocellar spots; there is a spot in I, in the paratype there is also a small spot in 5. Length of fore wing: 21 mm, antenna-wing ratio: 0.40.

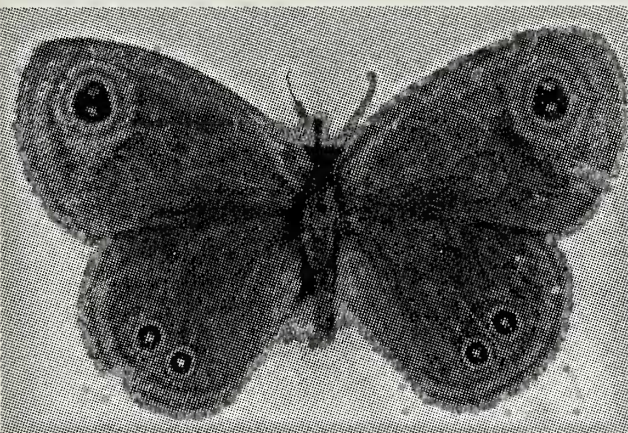
Female: Larger than the male, wings more rounded; upper side with ground colour as in the male; fore wings with subapical ocellar area much paler than the ground colour and sharply defined as in the male, but more rounded. Upper side of the hind wings as in the male. Underside with a ground colour and white sprinkling of scales as in the male; fore wings with ocellar area reaching and often crossing vein 2; there is often a small ocellar spot in area 1b and in others a small spot in 2; the ocellar area and spots of the hind wing as in the male, but all the specimens before me have a double spot in area 1b.

Length of fore wing: 23 mm; antenna-wing ratio: 0.40.

19



20



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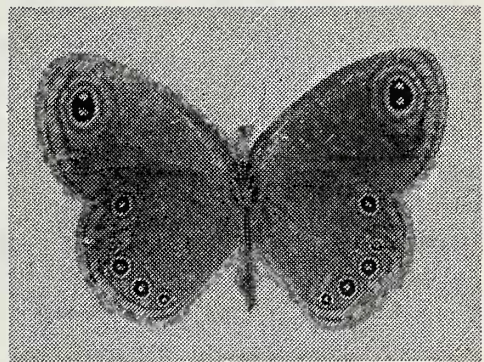


Fig. 19—21. *Coenyropsis carcassoni* sp. n. 19. ♂, holotype, upperside; 20. ♀, allotype, upperside; 21. ♀, allotype, underside.

Genitalia ♂: Dorsal aspect: basal portion of uncus wide, rather abruptly narrowing to the narrow portion; apex of valva blunt, rather square cut, not widened before the apex. Lateral aspect: Basal portion of tegumen more robust than in *bera*; uncus a little shorter; distal portion of aedeagus straighter in lateral aspect.

Habitat: Open woodland with lush grasses.

Holotype ♂: Kenya, Mackinnon Road, May 1960, A. H. B. Rydon, allotype ♀: Tanzania, Kilosa Distr., Mikumi Nat. Park, May 1973, J. Kielland. Paratypes: 1 ♂, 1 ♀ Tanzania, Mikumi, May 1973, J. Kielland; 1 ♀ Kenya, Mackinnon Road, December 1959, R. H. Carcasson; 1 ♀ Tanzania, Handeni, June 1959, R. H. Carcasson. Holotype, allotype and one paratype have been deposited in the National Museum, Nairobi; one paratype in the British Museum (Nat. Hist.) and other paratypes in the author's collection.

I have the pleasure of dedicating this new species to one of its collectors, Dr. R. H. Carcasson, who has been of great help to me during my earlier study of African Rhopalocera.

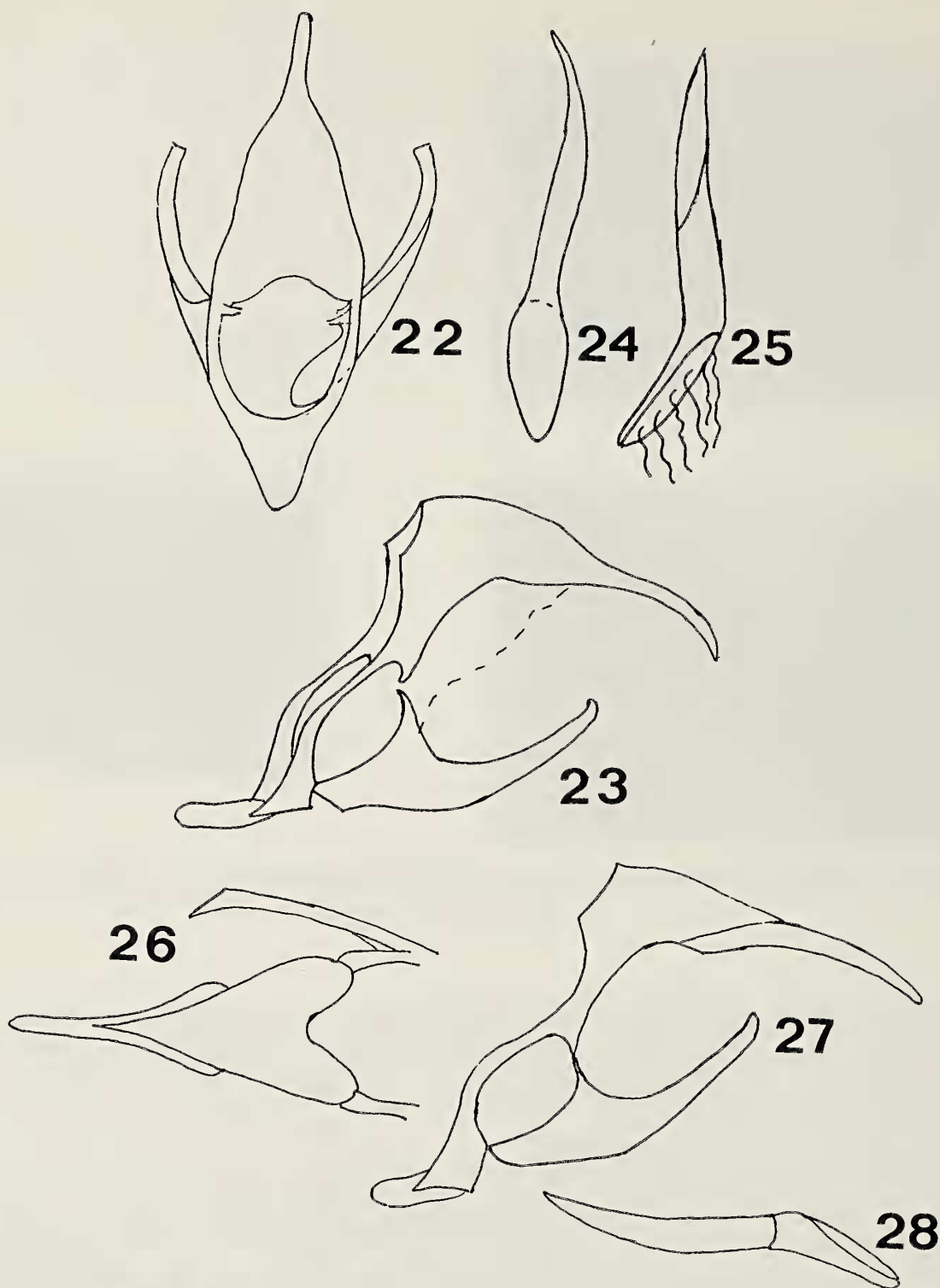
Acraea vuilloti Mabilie (Acraeidae), figs. 29—32

Annls Soc. ent. Fr. [6] 8, Bull.: 170, 1888

There has been doubt whether this species is a subspecies, form or aberrant of *Acraea pharsalus* Ward, or a valid species.

Both consistency of external characters, the genitalia and habitat suggest that *vuilloti* is a true species.

Carcasson (1961) writes as follows: "and although treated as a subspecies by Eltringham it must be regarded as an aberration of the preceding race (*pharsalus pharsaloides* Holland) in view of its extreme rarity and its range, which overlaps that of *pharsaloides*." But Carcasson also mentions that *vuilloti* might be a distinct species.

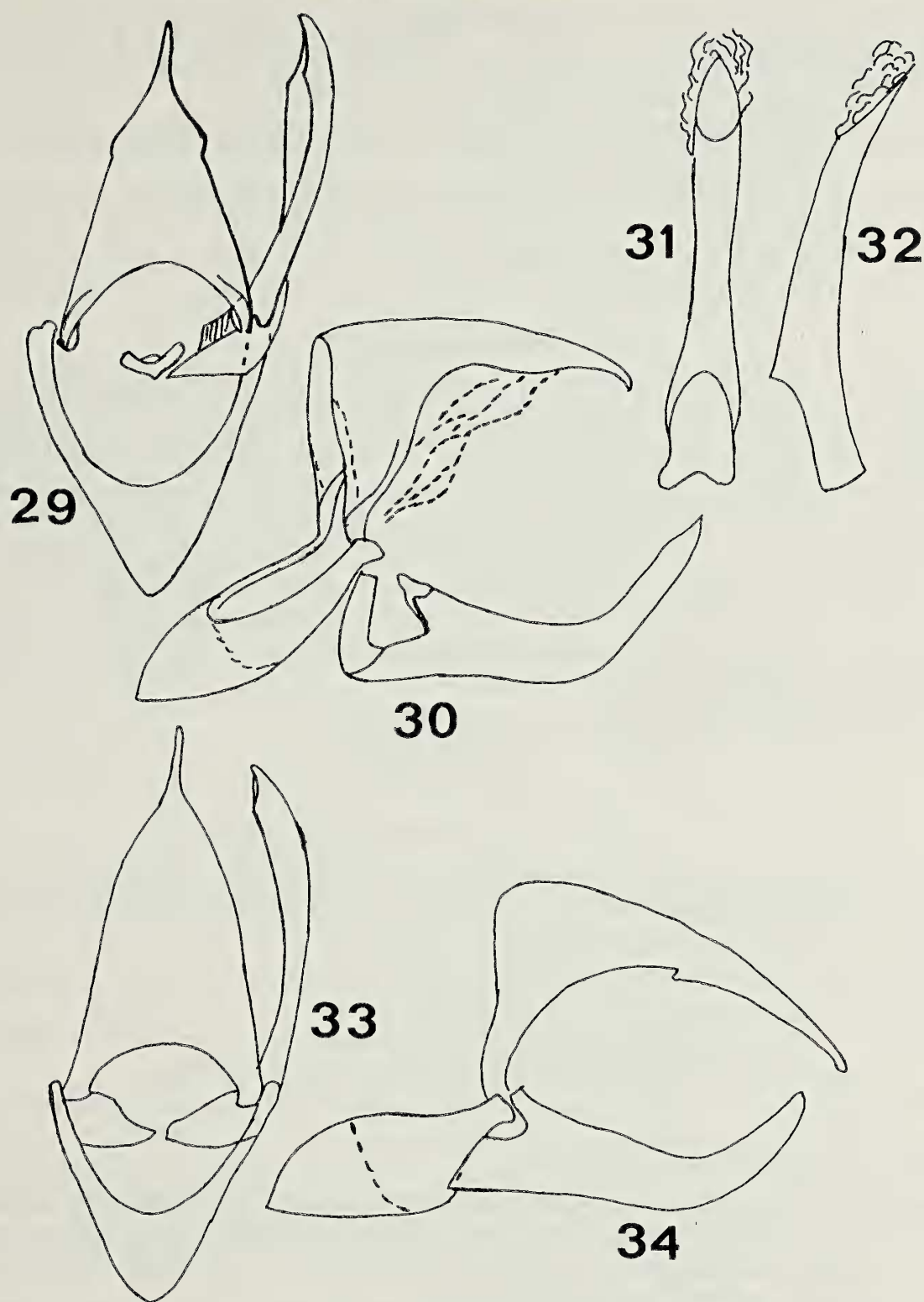


Male genitalia. Fig. 22—25. *Coenyropsis carcassoni* sp. n. 22. dorsal aspect; 23. lateral aspect; 24—25. aedeagus in ventral and lateral aspect. Fig. 26—28. *Coenyropsis bera* Hewitson. 26. dorsal aspect; 27. lateral aspect; 28. aedeagus.

A. vuilloti is certainly not an aberrant. First because this species is not as rare as believed. On two occasions I collected rather long series of *vuilloti* at the forest edge of the Uluguru and no *pharsaloides* or intermediates.

A. vuilloti is very constant and females can only be separated from the males with certainty on the genitalia. Even the wing shapes are similar. In *pharsalus* the females and males are easily separated at a glance. *Vuilloti* prefers high altitudes. In lower altitudes of the same mountain *pharsalus pharsaloides* is taken. Personally I have not found *vuilloti* at lower altitudes, but the species is recorded from Bagamoyo which is situated at the coast. Other records are from Amani and Usagara, both of these localities include high and low altitudes. It is probably very rarely found in the lower altitudes, but is certainly quite common high up in the Uluguru Mts.

The genitalia of *vuilloti* show distinct differences from those of *pharsalus* as shown in the figures.



Male genitalia. Fig. 29—32. *Acraea pharsalus* Ward. 29. dorsal aspect; 30. lateral aspect; 31—32. aedeagus, ventral and lateral aspect. Fig. 33-34. *Acraea vuilloti* Mabille. 33. dorsal aspect; 34. lateral aspect.

Principal distinctive features in male genitalia of *Acraea pharsalus* and *A. vuilloti*.

pharsalus

vuilloti

valva	as long as, or longer than tegumen-uncus	shorter than tegumen-uncus
saccus	nearly as long as tegumen-uncus	much shorter than tegumen-uncus
uncus	laterally convex before joining tegumen	uncus and tegumen evenly rounded
distal upturned part of valva	nearly as long as basal part	much shorter than basal part

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GYNANDROMORF VAN AGLIA TAU (LINNAEUS) (LEP., SATURNIIDAE). Op 14 mei 1975 zagen mijn vrouw en ik enige mannetjes van *A. tau* rondvliegen in een berkenbosje bij Hoenderloo. Op een plaats ongeveer 30 meter van ons vandaan vlogen ze „weifelend” boven de grond heen en weer. Gewoonlijk stoten ze resoluut omlaag als ze een wijfje ontdekt hebben. Toen ik op de weifelplaats rondkeek, zag ik een *tau* aan een tak hangen. Goed toekijkend zag ik één vrouwelijke en één mannelijke spriet. Er ging mij toen een „entomologisch” licht op en jawel, ik had een gynandromorf voor mij. Ik maakte een opname van het insect en plaatste het toen op een berketak, blies voorzichtig de vleugels wat vlak en nam een tweede. Verscheidene foto's waren het resultaat van de belevenis, zodat ik er nu een kleine serie van heb. Het is een zuiver bilaterale gynandromorf, links ♂, rechts ♀.

A. Veldhuyzen, Henri Dunantlaan 117, Apeldoorn 6708.

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